MARKED UP VERSION OF THE CLAIMS

22. (currently amended) A method for treating a gonadotrophin related illness in a mammal, said method comprises the step of administering to the mammal a therapeutically effective amount of an agent, the agent comprises:

(a) a LH_N which comprises (i) light chain component comprising a light chain L, of a botulinum toxin, a butyricum toxin, or a tetani toxin and ~~,~~

(ii) a translocation component comprising a heavy chain H_N, of a botulinum toxin, a butyricum toxin, or a tetani toxin~~,~~ ; and

(b) a targeting component which comprises a gonadotrophin-releasing hormone (GnRH) or a GnRH analog, wherein the LH_N is covalently coupled to the GnRH or a GnRH analog , and wherein the targeting component selectively binds to a GnRH receptor wherein the gonadotrophin related illness is selected from the group consisting of breast cancer, prostate cancer, pancreatic cancer, and endometrial cancer,

thereby treating a gonadotrophin related illness by lowering the level of a gonadotrophin secretion.

23. (previously cancelled)

24. (previously added) The agent according to claim 22 wherein the light chain component decreases the release of a hormone from a cell.

25. (previously added) The agent according to claim 22 wherein the light chain component comprises a light chain of a botulinum toxin type A, B, C_1, D, E, F, or G.

26. (previously added) The agent according to claim 22 wherein the light chain component comprises a light chain of a botulinum toxin type A.

27. (previously added) The agent according to claim 22 wherein the translocation component comprises a heavy chain of a botulinum toxin type A, B, C_1, D, E, F, or G.

28. (previously added) The agent according to claim 22 wherein the translocation component comprises a heavy chain of a botulinum toxin type A.

29-30 (cancelled)